# Earth Island Institute

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Please route to: Ms. Dana Wetzig Local phone: _____

From: Mark J. Palmer, International Marine Mammal Project

Notes: _____

May 31, 2001

Ms. Donna Wieting, Chief
Marine Mammal Conservation Division
Office of Protected Resources
National Marine Fisheries Service
1315 East-West Highway
Silver Spring, MD 20910-3226

**RE: Federal Register Notice Vol. 66, No. 53;**
**"Proposed Rule for Taking Marine Mammals Incidental to Navy Operations of SURTASS LFA Sonar"**
**50 CFR Part 216; Docket No. 990927266-0240-02;**
**I.D. 072699A; RIN 0648-AM62**

**ADD THESE COMMENTS TO THE ADMINISTRATIVE RECORD**

Dear Chief Wieting:

These comments are being submitted on behalf of the International Marine Mammal Project of Earth Island Institute.

We would like to associate ourselves with the comments provided by the Natural Resources Defense Council and the Humane Society of the United States.

## I. Earth Island Institute Opposes Deployment of LFA Sonar:

Earth Island Institute is opposed to the deployment and continued testing of the Navy's Surveillance Towed Array Sensor System (SURTASS) Low Frequency Active (LFA) Sonar.

Noise pollution in the oceans constitutes a growing environmental issue that is not being adequately addressed. The Navy's planned LFA Sonar system will add tremendously to the problem of ocean noise pollution through the use of very high energy soundblasting coupled with the long-range underwater effects characteristic of low frequency sound.

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Virtually nothing is known about the short-term, long-term, or cumulative effects of LFA Sonar on the ocean ecosystems, or how the LFA Sonar soundblasting will interact with other noise sources underwater.

What little that has been determined through limited research by the Navy suggests we should be deeply concerned, as we will outline in more detail in our comments below. Instead, the Navy has cavalierly pronounced the LFA Sonar's effects as variously "negligible," "minimal," and "not biologically significant." This does not suggest to us that the Navy can be counted on to fairly judge the results of deployment or to adequately monitor the effects. Nor does it give us faith that the conclusions of the Navy's own biological assessments and Final Environmental Impact Statement (FEIS) can be given much weight.

We believe it to be a violation of the Marine Mammal Protection Act (MMPA), the Endangered Species Act (ESA), the National Environmental Quality Act (NEPA), and the Administrative Procedures Act for the National Marine Fisheries Service (NMFS) to issue a permit to the Navy for "small" take of marine mammals through deployment of the LFA Sonar system.

## II. Science Does Not Support Permit Issuance:

### A. No Justification for 180 Decibel Limit:

There is no scientific justification for the Navy or NMFS to claim that there will be no adverse impact on whales or other marine life at LFA Sonar sound levels of 180 dB.

According to the Navy's FEIS, the sound levels used in experimentation on whales was only 120 to 155 dB, far lower than the effective operating level of 242 dB at maximum for the LFA Sonar system and far lower than the 180 dB deemed acceptable by the Navy. Even at lower levels of 120 to 155 dB, the Navy's experiments noted "short-term behavioral responses" to the noisemakers. Furthermore, the Navy notes that "avoidance responses were sometimes obvious in the field" for migrating gray whales. However, these changes in behavior are dismissed as "no significant change in biologically important behavior", a

point which we clearly disagree. If singing of mating humpback whales or migration of gray whales is not considered "biologically significant", it is hard to understand what the Navy would consider "significant".

(It is important to note that causing "short-term behavioral responses" in whales is a violation of the MMPA when applied to whalewatching operations, as determined by NMFS guidelines and, in the case of Hawai'i, regulations. Such disturbance of behavior, however, under whalewatching conditions usually is limited to one or a few animals, not to whole populations throughout the world's oceans as the Navy proposes with the LFA Sonar system.)

Extrapolation of this limited data to claim "no harm" at sound levels up to 180 dB violates the basis premises of science, not to mention the Precautionary Principle.

**B. Use of LFA Sonar During Warfare Not Considered:**

A serious gap in the entire process is the fact that the NMFS permit and LFA Sonar mitigations do not cover use, according to the Navy's FEIS, "in armed conflict or direct combat support operations, nor during periods of heightened threat conditions…"

An analysis by Earth Island Institute of military articles available to the public on LFA Sonar, as reported in ***Earth Island Journal*** last year, noted that virtually all but one indicated the main use of LFA Sonar was for combat support efforts in inshore waters. These are the very waters the current mitigations put out-of-bounds for use of LFA Sonar in order to protect the marine environment.

Obviously, the primary use of LFA Sonar is precisely during times of war, combat, and heightened threat conditions – there is no other need for the system. Therefore, both the FEIS process and the NMFS permitting process are sadly remiss in the failure to address use of LFA Sonar during these times, and the adverse effects on the environment from such use.

During the Gulf War, Iraq's Dictator Saddam Hussein fired the Kuwait oil fields and deliberately dumped millions of

gallons of oil into the Persian Gulf. This act prompted strong protests from around the globe for the conduct of "ecological warfare". Is the U.S. Navy now planning to emulate this dictator's actions by conducting ecological warfare against whales and other marine life, using the excuse that the ends justify the means? Are the U.S. Navy and NMFS prepared to knowingly allow wholesale destruction of the marine environment?

**C. NMFS Deliberately Ignores Implications of March 2000 Bahamas Stranding Incident:**

In March 2000, a number of beaked whales, two minke whales, and one dolphin were reported stranded in the Bahamas. Detailed information is available about this incident, and NMFS continues to investigate the cause and consequences of the strandings, as do independent researchers.

Yet, NMFS and the Navy refuse to consider the strandings as to the possible consequences of deploying the LFA Sonar system. Indeed, the Navy still refuses to admit any role whatsoever in the Bahamas strandings. NMFS research on the stranding is still underway.

Virtually all of the FEIS and NMFS permit discussion focuses on potential ear damage in whales (especially baleen whales) from LFA Sonar, dismissing the potential for damage. Yet, in the case of the Bahamas stranding, clear damage occurred to toothed whales in the ear region. Additionally, other tissue damage in the lungs, eyes, and sinus cavities has been reported. Again, the analysis of these injuries is still pending. Why is NMFS ignoring potential damage to whales other than ear damage from LFA Sonar? Why is NMFS refusing to consider the Bahamas incident and its implications for use of LFA Sonar? The fact that the Bahamas sonar was of mid-range frequency does not preclude consideration of low-frequency sonar implications – biologist Ken Balcomb developed a plausible model for resonance damage caused by the mid-range sonar in the Bahamas incident that is applicable to LFA sonar.

The refusal by NMFS to consider the Bahamas incident in weighing potential harm to whales from LFA sonar is simply anti-science. At the least, NMFS should await the final report on

that investigation, then consider the implications for LFA Sonar, before issuing a small take permit to the Navy.

**D. Human Damages From LFA Sonar Not Fully Considered:**

While the NMFS permit goes into detail comparing human ear responses to LFA Sonar with the ears of whales, other forms of damage from LFA Sonar that appear in humans are ignored for whales. In addition to ear damage, human reports indicate nervous system damage, psychological problems, and other tissue damage (pain throughout the body, not just in the ears, for example). It appears clear that LFA Sonar can do considerably more than just damage cetacean ears, but the NMFS analysis refers only to ear damage.

As noted above, considerable tissue damage occurred in beaked whales in the Bahamas due, apparently, to mid-range frequency sonar. Ken Balcomb has developed a model suggesting that resonance in the air spaces of the whales was the cause of considerable pain and tissue damage, resulting in the deaths of these whales through stranding.

If human divers (and well-trained, fit Navy divers at that) can only safely absorb LFA Sonar under 145 dB, as the Navy proposes in their FEIS, why is it likely that whales can escape injury at much higher levels (e.g. up to 180 dB)? Ear damage in cetaceans is not the only issue, and the NMFS analysis is remiss and unscientific in confining itself to just ear damage comparisons and boot-strapping of lower experimental levels of LFA Sonar.

**E. Damage to Marine Life Other Than Whales Untested and Unknown:**

NMFS and the Navy have not conducted studies as to the potential impact of LFA Sonar on pinnipeds, dolphins, other toothed whales, sea otters, fish (including commercially important species), cephalopods, or other vulnerable marine species.

## III. Issuance of Small Take Permit is Illegal:

### A. 100% of World's Whales are Potentially Affected:

Even if one assumes it will only operate in 80% of the world's oceans, which is clearly incorrect under war or heightened alert situations, the claim that use of LFA Sonar will "take" only "small numbers" of cetaceans and other marine mammals within a "specified geographic region" is ludicrous.

A major characteristic of Low Frequency sound is the ability to penetrate water over long distances. Virtually ALL (100%) of the world's whales and marine mammals will feel the effects of LFA Sonar. In times of war, combat or heightened threat, the mitigation provisions of the NMFS permit will no longer be applicable. Thus, large-scale damage to whales and marine mammals is a very likely scenario, under the circumstances. The LFA Sonar ships will be moving throughout the world's oceans, so claiming limited geographic effects makes a mockery of the "small take" provisions of the MMPA.

It is illegal for NMFS to use the "small take" exemption for a system of this size, potential damage, and geographic scope.

### B. The Navy's Final Environmental Impact Statement is Inadequate:

For many of the reasons stated above, the FEIS prepared by the Navy is inadequate to defend the program as presented to NMFS. As such, NMFS should deny the permit for small take of marine mammals in keeping with the provisions of the National Environmental Protection Act as applied to actions taken by NMFS under the Marine Mammal Protection Act.

Thank you for your consideration of our comments.

We respectfully request that NMFS deny the small take permit to the U.S. Navy for deployment of soundblasting LFA Sonar.

Sincerely yours,

David Phillips
Director

Mark J. Palmer
Assistant Director